

RECLAMATION

Managing Water in the West

Draft Environmental Assessment

Approval of a One-Year Warren Contract with Lindsay-Strathmore Irrigation District Kaweah River (Wutchumna) Water Supply 2008 Only

EA-07-106



U.S. Department of the Interior
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List of Acronyms, Abbreviations, and Definition of Terms

AF	acre feet
BA	Biological Assessment
BO	Biological Opinion
cfs	cubic feet per second
Class 1 water	That supply of water stored in or flowing through Millerton Lake which, will be available for delivery from Millerton Lake and the Friant-Kern and Madera Canals. It is a dependable water supply during each year.
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
DOI	Department of Interior
EA	Environmental Assessment
FKC	Friant-Kern Canal
FWCA	Fish and Wildlife Coordination Act
ITAs	Indian Trust Assets
LSID	Lindsay Strathmore Irrigation District
M&I	municipal and industrial
National Register	National Register of Historic Places
NHPA	National Historic Preservation Act
Reclamation	U.S. Bureau of Reclamation
Service	U. S. Fish and Wildlife Service
TID	Tulare Irrigation District
USACOE	U.S. Army Corps of Engineers
Wutchumna	Wutchumna Mutual Water Company

Section 1 Purpose and Need for Action

1.1 Background

The Warren Act of 1911 authorizes the U.S. Bureau of Reclamation (Reclamation) to negotiate contracts to convey non-Central Valley Project (non-CVP) water in excess capacity of federal Reclamation CVP facilities.

Lindsay-Strathmore Irrigation District (LSID) was formed in 1915. LSID is located in Tulare County on the east side of the San Joaquin Valley. The LSID owns 21 shares of stock of the Wutchumna Mutual Water Company (Wutchumna) which has an appropriative right to water from the Kaweah River. Wutchumna purchased 4,000 acre feet (AF) of storage rights in 2003 in conjunction with the raising of Terminus Dam and the enlargement of Kaweah Reservoir by the U.S. Army Corps of Engineers (USACOE). Prior to 2003, Wutchumna did not have a storage right in Kaweah Reservoir except as an encroachment in the space of other right holders on the Kaweah River. If all available storage was occupied by the prior right holders then the Wutchumna water was forced out of the reservoir and was diverted from Wutchumna Ditch or the water was diverted by downstream users. This right was established prior to enactment of the California Water Commission Act of 1913 and is conducted independently of CVP operations. As such, the non-CVP water may be used at the discretion of LSID, provided it complies with State water law and does not harm other water users.

Wutchumna derives its entitlement to Kaweah River water from the *Lakeside Ditch Company v. Wutchumna Mutual Water Company* adjudication and can store the Wutchumna's entitlement in Kaweah Reservoir or divert at the Wutchumna's headworks located downstream from Terminus Dam. Wutchumna owns a small regulating reservoir, Bravo Lake, near the City of Woodlake, through which the water must pass on its way to LSID's pumping station located at the intersection of the Upper Wutchumna Ditch and the Friant-Kern Canal (FKC), a federal CVP facility.

LSID is located about 18 miles south of the Kaweah River and Wutchumna Ditch. Prior to construction of the CVP, LSID operated a concrete flume to deliver this non-CVP water to its service area. The path of the 152-mile long FKC, constructed in the 1950s, passes through LSID for approximately nine miles. LSID's flume was removed to make way for the FKC. The existing Upper Wutchumna Ditch was modified to pass under the FKC. LSID's Kaweah River share of the Wutchumna water may be pumped from the Upper Wutchumna Ditch into the FKC where the two facilities cross. LSID has historically (see relevant environmental documents below) entered into Warren Act Contracts with Reclamation to convey this water by gravity in the FKC to the remaining portions of LSID's distribution system.

The availability of this non-CVP water is subject to the USACOE flood control criteria for operation of its Terminus Reservoir on the Kaweah River. The diversion is also subject to coordination with other Kaweah River basin water users represented by the Kaweah Delta Water Conservation District.

LSID owns and operates four pumps and a fish screen to lift non-CVP water from Wutchumna Ditch into the FKC. The capacity of these pumps is about 65 cubic feet per second (cfs), approximately 130 AF per day. The capacity of the FKC in the potentially affected reaches is 4,500 cfs.

This environmental assessment (EA) will examine the impacts of conveying non-CVP water through excess capacity of the FKC and its final end use.

Relevant Environmental Documents

EA/FONSI-00-09 *One-year Warren Act Contract with Lindsay-Strathmore Irrigation District Kaweah River (Wutchumna) Water Supply 2000.*

EA/FONSI-04-91 *One-year Warren Act Contract with Lindsay-Strathmore Irrigation District Kaweah River (Wutchumna) Water Supply 2004.*

EA/FONSI-05-131 *One-year Warren Act Contract with Lindsay-Strathmore Irrigation District Kaweah River (Wutchumna) Water Supply 2006.*

EA/FONS-07-16 *One-year Warren Act Contract with Lindsay-Strathmore Irrigation District Kaweah River (Wutchumna) Water Supply 2007.*

1.2 Purpose and Need

The purpose of the contract is to allow conveyance of LSID's non-CVP water through excess capacity of CVP facilities. LSID needs the non-CVP water conveyed for delivery to their district. It is anticipated that LSID would need conveyance of the non-CVP water in Contract Year 2008 to meet irrigation and domestic demands.

1.3 Potential Issues

- Physical Resources
- Biological Resources
- Cultural Resources
- Indian Trust Assets
- Socioeconomic Resources

- Environmental Justice

1.4 Applicable Regulatory Requirements and Required Coordination

Several Federal laws, permits, licenses and policy requirements have directed, limited or guided the NEPA analysis and decision making process of this EA and include the following:

- *Reclamation States Emergency Drought Relief Act* – Section 102 of the Reclamation States Emergency Drought Relief Act of 1991 provides for use of Federal facilities and contracts for temporary water supplies, storage and conveyance of non-CVP water inside and outside project service areas for municipal and industrial (M&I), fish and wildlife and agricultural uses.
- *Contracts for Additional Storage and Delivery of Water* – Central Valley Improvement Act (CVPIA) of 1992, Title 34 (of Public Law 102-575), Section 3408, Additional Authorities (c) authorizes the Secretary of the Interior to enter into contracts pursuant to Reclamation law and this title with any Federal agency California water user or water agency, State agency, or private nonprofit organization for the exchange, impoundment, storage, carriage, and delivery of Central Valley Project and non-project water for domestic, municipal, industrial, fish and wildlife, and any other beneficial purpose, except that nothing in this subsection shall be deemed to supersede the provisions of section 103 of Public Law 99-546 (100 Stat. 3051). The CVPIA is incorporated by reference.
- *Water Quality Standards* – Reclamation requires that the operation and maintenance of CVP Project facilities shall be performed in such manner as is practical to maintain the quality of raw water at the highest level that is reasonably attainable. Water quality and monitoring requirements are established by Reclamation to protect water quality in the FKC by ensuring that imported non-CVP water does not impair existing uses or negatively impact existing water quality conditions. These standards are updated periodically. The annual review for the approval of Warren Act Contracts would be subject to the then existing water quality standards.

The water quality standards are the maximum concentration of certain contaminants that may occur in each source of non-CVP water.

Section 2 Alternatives Including Proposed Action

2.1 Alternative A – No Action

The No Action Alternative would consist of not allowing the non-CVP water originating in the Kaweah River to be conveyed to LSID through CVP facilities. Without the Proposed Action, LSID could not use this water in its service area and would need to construct facilities to obtain this water. The construction of new facilities would duplicate a portion of the CVP facilities. LSID could sell this water to willing buyers. This water could be delivered to Tulare Irrigation District (TID) in non-CVP facilities for groundwater recharge to benefit LSID in a dry year.

2.2 Alternative B - Proposed Action

Reclamation proposes to enter into a temporary Warren Act Contract for one year with LSID to convey non-CVP water in excess capacity in CVP facilities, when feasible. To allow greater flexibility and options for LSID to receive water to meet demands, LSID requests a Warren Act of up to 10,000 AF of non-CVP water. The 10,000 AF is the maximum amount of water from the 21 shares of stock in Wutchumna water from LSID's entitlement to Kaweah River water. In most years, 1/3 of this non-CVP water is conveyed in CVP facilities to LSID and the remaining 2/3 is delivered in non-CVP facilities to TID for groundwater recharge purposes for LSID's benefit in dry years. By executing a Warren Act Contract for LSID's full Kaweah River entitlement, LSID retains the flexibility of delivering all of their water in district if it is needed, such as in a dry year.

The quality of the non-CVP water would be tested prior to pumping into the FKC and compared with State of California standards for drinking water.

To aid in understanding of this Proposed Action refer to the map in Figure 1 while reading the following description of how this water is physically wheeled and exchanged. LSID pumps Kaweah River and Wutchumna water that is diverted from the Kaweah River system into Bravo Lake. Once in Bravo Lake it goes west into the Upper Wutchumna Ditch, is moved south into the FKC, and eventually flows into LSID's facilities. (See map.)

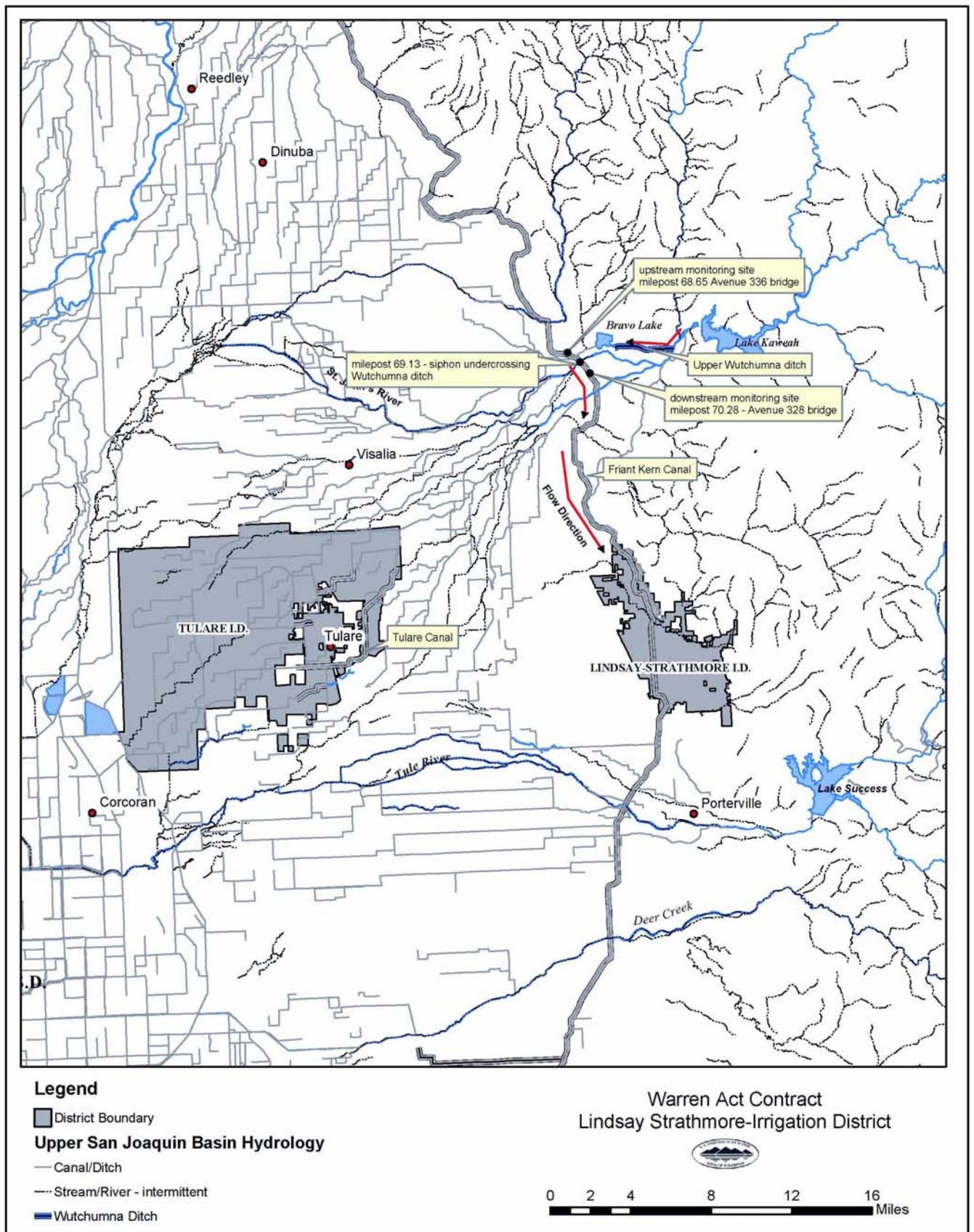


Figure 1 LSID Map

2.2.1 Criteria Applicable to the Proposed Action:

- The non-CVP water would be beneficially used for existing agricultural and domestic purposes. This non-CVP water would not be applied to natural lands until after a site-specific survey for threatened and endangered species has been completed and submitted to the U.S. Fish and Wildlife Service (Service) and, when indicated by the results of the survey, the completion of a Section 7 or Section 10 consultation under the Endangered Species Act (ESA) on the affect of cultivating the area. Natural lands in this context refer to uplands that have been fallow or idle for three years or more, pastureland or other natural areas not currently being used for agricultural production, excluding wetlands.
- Grasslands and shrub land that has never been tilled or irrigated would not be tilled and put into agricultural production using this non-CVP water. If the land has been fallow for three years, it must be inspected by a qualified biologist for the possible presence of endangered species. Reclamation has not and does not intend to request any “take” coverage for any non-federal actions on non-federal lands. Any “take” would nullify the determination in this EA, would require a formal consultation, and would be solely the responsibility of the individual responsible for the “take”. The definition of “take” is to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” (16 U.S.C. 1532(19)).
- The integrity of the fish screens would be maintained by LSID.

2.3 Other Alternatives Considered but Eliminated from Further Consideration

Three possible alternatives were considered. The first was the construction of a canal or pipeline. This alternative was eliminated due to the considerable expense, potential environmental damage, and lack of flexibility to transport non-CVP water. The second alternative was a new or enlarged reservoir, or a new groundwater recharge basin, to store surplus water during wet years. This potential alternative was removed from consideration due to expense, probable environmental impacts and a failure to meet the described purpose and need. A third option, Reclamation’s purchase of the non-CVP water for CVP purposes, was eliminated from consideration because of unknown costs, potential controversy, and water rights changes. None of these alternatives could be completed in time to deliver the non-CVP water to LSID during 2008.

Section 3 Affected Environment & Environmental Consequences

3.1 Physical Resources

3.1.1 Affected Environment

Friant-Kern Canal

The FKC begins at Friant Dam near Fresno and extends approximately 152 miles south to the Kern River near Bakersfield. The water conveyed in the FKC is from the San Joaquin River and is considered to be of good quality because it originates in the Sierra Nevada. The FKC is an earthen and concrete lined structure that conveys water from the San Joaquin River to the Kern River. Approximately 800,000 acres of farmland and communities in four counties are served by this conveyance canal. Family farms are the norm and the main crops are permanent plantings of vineyards, citrus, olives, and other deciduous fruit trees. The capacity, on average, of the FKC is 4,500 cfs. The FKC bisects LSID from north to south for approximately nine miles.

The facilities of FKC are part of the Friant Division. The Friant Division of the CVP delivers water to over one million acres of irrigable farm land on the east side of the southern San Joaquin Valley from approximately Chowchilla on the north to the Tehachapi Mountains on the south.

Kaweah River

The USACOE operates Terminus Dam on the Kaweah River for flood control. Downstream of Terminus Dam, the St. Johns River divides from the Kaweah River at McKay's Point. The St. Johns River becomes Cross Creek north of Goshen. A few tributaries, such as Dry Creek and Yokohl Creek, flow into the Kaweah and St. Johns Rivers. The Kaweah River ceases to be an identifiable stream south of Highway 245, and the river branches into Mill Creek and other major and minor streams. As the Kaweah River flows to the valley floor, many other creeks branch from the Kaweah River creating a delta. During the irrigation season (June through August) the Rivermaster of the Kaweah Delta Water Conservation District manages the Kaweah River similarly to a canal facility to meet demands. The St. Johns River is a man-made river and branches off the Kaweah River. In addition, a myriad of small creeks flow from the Kaweah River below Terminus Dam ending generally in the vicinity of the City of Visalia.

Lindsay-Strathmore Irrigation District

LSID is a long-term CVP contractor. The maximum annual entitlement of CVP water is 27,500 AF of Class 1 water from the Friant Division for irrigation and M&I uses. LSID is comprised of 15,400 acres, of which 14,075 are irrigable acres. The main crops are citrus – 77 percent, non-citrus fruit – 19 percent, and forage – 2 percent. LSID is located within the Kaweah Basin and is

adjacent to the Tule Basin. The Kaweah Basin encompasses the area around the City of Visalia and is supplied by the Kaweah River.

LSID's historic maximum entitlement of Kaweah River water through its ownership of Wutchumna stock is approximately 10,000 AF. Typically, irrigation timing is February to October. Approximately 1/3 of this Kaweah River water has been conveyed each year in the FKC to LSID since 1948. The remaining 2/3 is delivered to other stockholders of the Wutchumna Mutual Water Company, though principally this water is delivered to TID through private Wutchumna facilities. LSID is located near the foothills and does not have an adequate groundwater supply. Surface water applied to lands in LSID likely flow into areas downslope from LSID. LSID does not operate recharge areas or a conjunctive use program. LSID contractually uses the conjunctive use capacity of the TID, a common stockholder in the Wutchumna Water Company, by delivering the District's Kaweah River water through the Wutchumna Ditch to the TID turnout. TID either uses this water for irrigation (in lieu recharge) or direct sinking in their groundwater recharge basins. During "dry" years, TID's farmers utilize the groundwater delivered by LSID. TID returns surface water to LSID through either the FKC or through the Kaweah River system. LSID's maximum water supplies are 34,000 AF per year of CVP and 10,000 AF per year of non-CVP water.

LSID provides agricultural and domestic water. Since the groundwater supplies are inadequate, LSID provides its non-CVP water to approximately 1,400 homes for domestic uses. This non-CVP water is subject to meeting Title 22 standards for drinking water prior to pumping into the FKC. Although this non-CVP water is subject to these standards, LSID does not own or operate any water treatment facilities and does not warrant this water for human drinking. Therefore, the residents purchase and use bottled water for human drinking and consumption.

Currently, LSID irrigates approximately 14,075 acres comprised mainly of permanent crops. LSID is responsible for providing water supplies to its customers. The amount of water available each year depends on hydrological and other conditions. When reductions in water supplies occur, several management options are employed to meet demands. Water transfers, exchanges, extractions from groundwater banks and conjunctive use programs are common to make up those deficits to protect their permanent crops and long-term investments. In dry years some irrigable acres may be fallowed. In a dry year, less water could be delivered to TID for recharge purposes and more water could be conveyed in the FKC to LSID if capacity exists.

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative, the non-CVP water would not be conveyed in the FKC. Left in the river systems, the water may not be available for use within the LSID and could not be put to beneficial use on LSID lands. The No Action Alternative would likely result in increases of

water transfers and higher costs for water. LSID could sell the non-CVP water and use the money to purchase local surface water supplies, if available. LSID has no usable groundwater basin that underlies the district. LSID does not operate recharge areas or a conjunctive use program. LSID could request water from TID under this conjunctive use program to offset decreases in surface water supplies for LSID via an exchange. If surface water supplies are not available to purchase, crop production within LSID could decrease.

Proposed Action

Under the Proposed Action, Reclamation would convey the non-CVP water for LSID in the FKC when capacity is available. This would not alter water rights held by the United States to divert CVP water from the San Joaquin River. The Proposed Action would not result in changes in water rights or amounts of water diverted from other rivers or reservoirs.

The introduction of this non-CVP water into the CVP facilities would not degrade the quality of CVP water. The Friant Class 1 water and Kaweah River water originate from neighboring watersheds. The quality of the non-CVP water would be tested prior to pumping into the FKC and compared with State of California standards for drinking water. Water quality tests occur within the FKC on a routine basis. The annual review for the approval of Warren Act Contracts would be subject to the then existing water quality standards. Reclamation staff would work with LSID to modify or restrict the operations to improve water quality.

The groundwater recharge program between LSID and TID is within historical conditions and would not result in long-term impacts to water resources. The amount of non-CVP water conveyed in the FKC is subordinate to CVP obligations and would not interfere with deliveries to third parties.

The Proposed Action would not change the existing diversion points. No facilities would be constructed or modified. The Proposed Action does not increase or decrease water supplies that would result in additional homes to be constructed and served. No additional energy is needed to convey this non-CVP Water.

Cumulative Effects

The Proposed Action does not trigger other water service actions and does not contribute to cumulative effects to physical resources when added to these other water service actions. The reservoirs, rivers and creeks in the lower San Joaquin Valley associated with the Proposed Action and facilities are managed for flood control, agricultural, municipal and industrial supplies. Diversions of water occur based on the hydrological environmental conditions. During wet seasons and high water flows, surplus water supplies are released and, if possible, marketed to quickly disperse this water to avoid flooding and damage downstream in the rivers. The Proposed Action would not interfere with deliveries, operations, or cause substantial adverse changes to the rivers, creeks or conveyance facilities.

The conveyance facilities and river systems in the lower San Joaquin Valley are interconnected and allow for a myriad of transfers, exchanges, contract assignments, and conveyances of water. These water service actions are common and are not precedent setting. The conveyance of non-CVP water in CVP facilities is subject to capacity after all CVP requirements are met.

The USACOE has increased the size of Terminus Dam on the Kaweah River. The dam enlargement project would provide 53 percent towards a 3.3-year flood protection for Tulare Lakebed agricultural lands, 26 percent towards providing 70-year flood protection for the City of Visalia, 8 percent towards increased water supplies for agricultural or marketing, 7 percent towards temporary increased employment and 6 percent towards reduced flooding on other towns and farmlands of the Kaweah River Basin. The enlargement of Kaweah Reservoir provided Wutchumna storage in the reservoir. This storage did not increase their water supplies. Transfers of Kaweah River water supplies outside of the Kaweah Basin are currently prohibited with the exception of high flood flows or when the members of the Kaweah Delta Water Conservation District do not object and in compliance with all applicable laws. The Proposed Action, when added to the modification to the dam project, would not contribute to cumulative effects to reservoirs or rivers. The conveyance of this water is contingent upon available capacity in the FKC. The unreliable timing and limitations of the conveyance of this water would not contribute to decisions to construct more homes or irrigate more lands. Therefore, the Proposed Action when added to the enlargement of Terminus Dam does not lead to major cumulative impacts to physical resources.

The Proposed Action would not contribute to or interfere with flood control management and operations.

No substantial or long-term changes in groundwater quality and quantity in groundwater basins located in the San Joaquin Valley would occur. As described earlier in the affected environment section, LSID is located near the foothills and does not have an adequate groundwater supply. Surface water applied to lands in LSID likely flow into areas downslope from LSID. LSID enters into contractual agreements with TID (also a CVP Contractor) for the conjunctive use capacity in TID. LSID provides approximately 2/3 of its Kaweah River water to other stockholders within the Wutchumna Mutual Water Company, though most of this amount is delivered to TID. This water is delivered to TID using the Upper Wutchumna Ditch and no CVP facilities are used to convey this non-CVP Water. TID uses this water for either irrigation (in lieu recharge) or direct sinking into their groundwater recharge basins. TID returns a like amount of surface water to LSID in dry years either through the FKC or through the Kaweah River system. The source of the returned surface water may be TID's CVP water conveyed in the FKC or non-CVP water through the Kaweah River system. The Proposed Action does not contribute to or interfere with this conjunctive use exchange arrangement between LSID and TID.

3.2 Biological Resources

3.2.1 Affected Environment

By the mid-1940's, prior to the CVP, most of the valley's native habitat had been altered and destroyed. The Service estimated that more than 85 percent of the valley's wetlands had been destroyed by 1939 (USFWS 1989). When the CVP began operations, more than 30 percent of all the natural habitat in the Central Valley and surrounding foothills had been converted to urban and agricultural land use.

Land within the Friant Division historically provided habitat for a variety of plants and animals. With the advent of irrigated agriculture and urban development over the last 100 years, many species have become threatened and endangered because of habitat loss. Of approximately 5.6 million acres of valley grasslands and San Joaquin saltbush scrub, the primary natural habitats across the valley, less than 10 percent remains today. Much of the remaining habitat consists of small, isolated fragments supporting small, highly vulnerable populations.

LSID is located in Tulare County on the east side of the San Joaquin Valley at the foot of the Sierra Nevada Mountain range. Land use within LSID is mainly agricultural. There have been no sightings within LSID of federally listed threatened and endangered species. However, LSID is within the range of the San Joaquin kit fox. Within 2 miles of LSID there have been sightings of three special status species. Within 10 miles there have been sightings of seven special status species. The seven special status species include three within the 2-mile buffer. See map and species list (Sacramento Fish and Wildlife Office, Species List Document Number 070911123344, September 11, 2007) in Appendix B. Below (Table 1) is a list of special status species.

Table 1 Special Status Species

Common Name	Scientific Name	Listing Status
Within LSID		
range of San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	ST/FE
Within 2 miles of LSID		
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	ST/FE
San Joaquin adobe sunburst	<i>Pseudobahia peirsonii</i>	SE/FT
Springville clarkia	<i>Clarkia springvillensis</i>	SE/FT
Within 10 miles of LSID		
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	ST/FE
San Joaquin adobe sunburst	<i>Pseudobahia peirsonii</i>	SE/FT
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT
Keck's checkermallow	<i>Sidalcea keckii</i>	FE
California condor	<i>Gymnogyps californianus</i>	SE/FE
Springville clarkia	<i>Clarkia springvillensis</i>	SE/FT

SE = State listed Endangered
ST = State listed Threatened
FE = Federally listed Endangered
FT = Federally listed Threatened

San Joaquin kit foxes inhabit grasslands and scrublands, many of which have been extensively modified. Types of modified habitats include those with oil exploration and extraction equipment and wind turbines, and agricultural mosaics of row crops, irrigated pastures, orchards, vineyards, and grazed annual grasslands. Oak woodland, alkali sink scrubland, and vernal pool and alkali meadow communities also provide habitat for kit foxes. Dens are scarce in areas with shallow soils because of the proximity to bedrock, high water tables, or impenetrable hardpan layers.

San Joaquin adobe sunburst

Springville clarkia is an erect annual herb belonging to the evening-primrose family (Onagraceae). Springville clarkia is found on granitic soils in openings in the blue oak (*Quercus douglasii*) woodlands and on road banks. It can be found at elevations between 1,200 and 3,000 feet. All known populations are found in Tulare County. Most of the populations are found within a 43 square mile area. Another population is 16 miles northwest. Four are on lands administered by the Sequoia National Forest, three on private land, one on land owned by Tulare County and part of one on land owned by the California Department of Fish and Game. The valley elderberry longhorn beetle is only found in association with its host plant, the elderberry. Elderberry is a common component of riparian and adjacent grasslands of the Central Valley. Almost 90 percent of the riparian habitat in California has been lost to agriculture and development in the past 150 years. (USFWS 2007)

Vernal pool fairy shrimp is a small crustacean that occupies vernal pool habitats from small, clear sandstone rock pools to large, turbid, alkaline grassland valley floor pools. It tends to occur in pools measuring less than 0.05 acres. These are most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands.

Keck's checkermallow is an annual herb in the mallow family (Malvaceae). Keck's checkermallow grows in relatively open areas on grassy slopes of the Sierra foothills in Fresno and Tulare counties. The species is associated with serpentine soils. Serpentine soils are unusually low in nutrients and high in heavy metals. These soil properties tend to restrict the growth of many competing plants. But serpentine soils are fairly rare. This limits the range of plants like Keck's checkermallow that are adapted to grow on them. (USFWS 2007b).

In California, California condors (*Gymnogyps californianus*) historically occurred as permanent residents of the semi-arid, rugged mountain ranges surrounding the southern San Joaquin Valley, including the Coast Ranges from Santa Clara County south to Los Angeles County, the

Transverse Ranges, Tehachapi Mountains, and southern Sierra Nevada. The recent range was restricted to chaparral, coniferous forests, and oak savannah habitats in southern and central California, although the species formerly occurred more widely throughout the Southwest (USFWS 2005a). They are opportunistic scavengers, feeding only on carrion, including deer, cattle, and marine mammals such as whales and seals (USFWS 2005a). Foraging occurs over vast expanses of remote open savannah, grasslands, and foothill chaparral, mountain plateaus, ridges, and canyons. At present, sufficient remaining habitat exists in California and in southwestern states to support a large number of condors, if density independent mortality factors, including shooting, lead poisoning, and collisions with man-made objects, can be controlled (USFWS 2005a).

There are no occurrence records for this species from within LSID (CDFG 2005). However, approximately 436 acres of land within LSID boundaries overlap the Tulare County Rangelands, which were designated Critical Habitat for California condors in 1976 and one occurrence record from 1976 is listed in this area (CDFG 2005). Most of the land in the district is in agricultural production or is otherwise developed, although a small portion may include annual grasslands within the area of designated critical habitat.

The Friant Division requested a formal consultation with the Service pursuant to section 7 of the ESA of 1973, as amended, as part of renewal of 28 long-term water service contracts. Reclamation committed to initiating consultation on other aspects of the CVP so that interrelated and interdependent actions, and cumulative impacts on species outside the San Joaquin Valley could be fully addressed. With that in mind, the Service issued its Biological Opinion (BO) on October 15, 1991 and Amendment of the BO on May 14, 1992. In their Opinion, the Service stated that renewal of the 28 long-term contracts would not likely jeopardize the continued existence of 15 threatened and endangered species found within the Friant Division service area, provided Reclamation implement short and long-term endangered species conservation programs to mitigate the adverse impacts of continued CVP water delivery to the Friant Division.

Subsequently, Reclamation consulted again with the Service on the long-term contract renewal for the Friant Division. The Service issued its *Biological Opinion on U.S. Bureau of Reclamation Long-Term Contract Renewal of Friant Division and Cross Valley Unit Contracts*, dated January 19, 2001, File Number 1-1-01-F-0027. Reclamation is committed to implementing the measures in the BOs. The 2001 BO updated the commitments, identified ongoing commitments and provided new information. With contract renewal, the Friant Division would continue to fulfill CVP purposes, while avoiding adverse impacts to threatened and endangered species. Reclamation has committed to implement a Valley-wide endangered species conservation program to protect these species from harmful effects of land-use conversion, agricultural pesticide use, and related activities. This program also committed the Service to participate by providing technical assistance and developing revised recovery plans for the San Joaquin Valley

species needed for the timely resolution of listed species concerns. A complete list of commitments is located in Appendix B of the 2001 BO for the renewal of the contracts for the Friant Division and Cross Valley Contractors.

Because development of a long-term program will take several years to fully implement, Reclamation implemented an interim program to protect listed species within the Friant service area. This short-term program will be in effect until the long-term conservation program is developed. The short-term program has four components:

- 1) The Service, with Reclamation's cooperation, developed a Critical Needs Plan that identified those species requiring immediate protection to assure their continued existence in the San Joaquin Valley. The Critical Needs Plan was incorporated into the Recovery Plan.
- 2) The Service developed a comprehensive recovery plan that includes upland listed endangered species in the San Joaquin Valley. Reclamation assisted in development of the recovery plan, and is also committed to implementation of the recovery plan to the extent of their authority.
- 3) Reclamation is, as a component of a broader program, implementing items identified in the recovery plan that are Reclamation's responsibility. Reclamation cooperated in conducting the population variability analysis.
- 4) Reclamation has developed and implemented a Cooperative Agreement to include entities whose activities affect listed species in the San Joaquin Valley. Cooperative efforts have resulted in cost savings for participating entities and a more uniform and coordinated effort toward species recovery.

The BO for the implementation of the CVPIA identified several ongoing and new commitments made by the Service and Reclamation. These commitments are applicable to the renewal of the Friant Division and Cross Valley Contractor's water contracts. Any encountered biological resources are likely to be those associated with actively cultivated land. No native untillable land would be placed into production as a result of the Warren Act Contract, conveyance and delivery of this water.

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, this water would not be conveyed in the FKC. LSID could construct its own conveyance facilities. Construction of independent facilities could harm some types of habitat and result in impacts to biological resources. Without a specific proposal for independent facilities, the impacts are difficult to predict. The main crops in LSID are permanent crops and the landowners would likely take measures to protect their investment in these crops.

LSID is responsible for providing water supplies to its customers. Since groundwater supplies are not adequate, LSID would likely purchase surface water supplies on the open market, if available. If surface water supplies are not available, losses in agricultural crops could occur. If crops were not planted, the idled land may provide other foraging habitat for San Joaquin kit fox, but the effect of the land use alteration on the suitability of the foraging habitat cannot be determined without knowing the exact nature of the changes. Since the location of changes of cropping patterns under the No Action Alternative are unknown relative to the distribution of foraging San Joaquin kit fox, any assessment as to potential effects from this alternative would be speculative.

Proposed Action

Reclamation has determined that the Proposed Action would have no effect on biological resources including endangered, threatened, or proposed listed species or habitats. This conclusion is based on the limitations listed in the environmental measures in Section 3.2.1 under the Proposed Action of this environmental assessment and that no changes to historical practices would occur. No new effects would occur to biological resources within LSID beyond those already addressed in existing environmental documents and BOs. The non-CVP water would be conveyed and delivered through existing facilities. The conveyance of this water in the FKC has occurred since 1948 and, if approved, would continue to be delivered to maintain existing conditions within LSID. The conveyance of this water is contingent upon the timing and availability of capacity in the FKC.

Water delivered to LSID can not be used to develop or bring into production native lands or lands fallowed for three or more years, or to convert such lands to other uses, without first conducting a survey for listed species. California condor Critical Habitat in LSID can not be converted with water from the project without consultation with Service. At this time, cropping patterns and land use are expected to remain similar (primarily vineyard and citrus or other tree fruit production). As long as there are no changes to existing conditions as a result of the delivery of this water, the project would not affect Critical Habitat or the species.

This non-CVP water is in addition to the amount of water analyzed in the 2000 Friant Division Long-Term Contract Renewal Biological Assessment (BA) and subsequent 2001 BO. However, this non-CVP water was delivered to LSID prior to the construction of the FKC. The relevant BAs and BOs examined the existing conditions, land uses and federally listed threatened and endangered species occurring within LSID. The Proposed Action would not increase water deliveries to LSID from historical supplies and would not contribute to changes from past conditions. The Proposed Action would not contribute to the construction of new homes or additional deliveries of M&I water. This non-CVP water would not be used on native untilled land. The Endangered Species Notice to the Friant Division water service contractors indicated some types of surface disturbing activities would require consultation with the Service. The

intent is that irrigation activities not affect the presence of threatened or endangered species. Grasslands and shrub land that have never been tilled or irrigated would not be tilled and put into production using this non-CVP Water. If the land has remained fallow for three years, it must be inspected (Service, Reclamation or independent consultants) for the possible presence of threatened or endangered species. In addition, LSID would be responsible for maintaining the proper integrity of the fish screens. Therefore, Reclamation has determined the Proposed Action when considered with the implementation of the measures in the applicable BOs, would have no affect on federally listed threatened or endangered species or any proposed or designated critical habitat and consultation is not required with Service or the National Marine Fisheries Service.

Cumulative Effects

The Proposed Action and other water service transactions do not result in cumulative impacts to fish or wildlife species. No increases or decreases of water diversions from natural water ways would occur. No changes in points of diversions would occur. The river systems are coordinated and managed in a similar manner to the canals. The proposed conveyance of non-CVP water when added to other water service transactions do not result in water supplies that would be relied upon for increases or sustaining urbanization. No long-term loss of habitat, shelter or foraging opportunities would occur as a result of the multiple water service transactions. The Proposed Action when added to other water service transactions does not result in cumulative or long-term actions that would contribute to additional affects on biological, fish and wildlife resources.

3.3 Cultural Resources

3.3.1 Affected Environment

Cultural resources is a broad term used to describe both ‘archaeological sites’ depicting evidence of past human use of the landscape and the ‘built environment’ which is represented in structures such as dams, roadways, and buildings. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation which outlines the Federal Government’s responsibility to cultural resources. Other applicable cultural resources laws and regulations that could apply include, but are not limited to, the Native American Graves Protection and Repatriation Act, and the Archaeological Resources Protection Act. Section 106 of the NHPA requires the Federal Government to take into consideration the affects of an undertaking listed on cultural resources on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

The nature of historic properties in the project area is not entirely known at this time; however, previous studies within the LSID have identified both prehistoric and historic resources. One historic resource, the FKC, has been determined eligible for inclusion in the National Register. The FKC was completed in 1951 as part of the Friant Division of the CVP. The CVP is the

United States' largest and arguably the most successful irrigation project. The CVP has had and continues to have a profound impact on California's social and economic landscape. The CVP is being nominated to the National Register for its contributions to the United States under criterion A as defined by the regulations at 36 CFR Part 60.4.

3.3.2 Environmental Consequences

No Action

The No Action Alternative would result in no Warren Act Contract and would not result in an 'undertaking' as defined by Section 301 of the NHPA (16 U.S.C. 470w([7])). There would be no federal responsibility to conduct Section 106 as a result.

Proposed Action

The conveyance of this non-CVP water has no potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). The non-CVP water would be conveyed in existing facilities and canals to established agricultural land or existing residences. No excavation or construction is required to convey the non-CVP water and no untilled land would be cultivated with this non-CVP water.

Cumulative Effects

The Proposed Action when added to other water service actions would not contribute to new ground disturbing activities or cumulative effects to cultural resources.

3.4 Indian Trust Assets

3.4.1 Affected Environment

Indian Trust Assets (ITAs) are legal interests in property held in trust by the U.S. for federally-recognized Indian tribes or individual Indians. An Indian trust has three components: (1) the trustee, (2) the beneficiary, and (3) the trust asset. ITAs can include land, minerals, federally-reserved hunting and fishing rights, federally-reserved water rights, and in-stream flows associated with trust land. Beneficiaries of the Indian trust relationship are federally-recognized Indian tribes with trust land; the U.S. is the trustee. By definition, ITAs cannot be sold, leased, or otherwise encumbered without approval of the U.S. The characterization and application of the U.S. trust relationship have been defined by case law that interprets Congressional acts, executive orders, and historic treaty provisions.

Consistent with President William J. Clinton's 1994 memorandum, "Government-to-Government Relations with Native American Tribal Governments," Reclamation assesses the effect of its programs on tribal trust resources and federally-recognized tribal governments. Reclamation is tasked to actively engage federally-recognized tribal governments and consult with such tribes on government-to-government level (59 Federal Register 1994) when its actions affect ITAs.

The U.S. Department of the Interior (DOI) Departmental Manual Part 512.2 ascribes the responsibility for ensuring protection of ITAs to the heads of bureaus and offices. Part 512, Chapter 2 of the Departmental Manual states that it is the policy of the Department of the Interior to recognize and fulfill its legal obligations to identify, protect, and conserve the trust resources of federally recognized Indian tribes and tribal members. All bureaus are responsible for, among other things, identifying any impact of their plans, projects, programs or activities on ITAs; ensuring that potential impacts are explicitly addressed in planning, decision, and operational documents; and consulting with recognized tribes who may be affected by proposed activities.

There are no Indian Trust Resources in LSID. The nearest Indian Trust Assets are located on the Tule River Reservation approximately 11 miles southeast of LSID.

3.4.2 Environmental Consequences

No Action

Under the No Action Alternative there are no impacts to ITAs, since conditions would remain the same as existing conditions.

Proposed Action

The Proposed Action would not interfere with existing Indian water rights or other trust assets. No new construction or changes in reservoir operations would be required to convey this water. Indian Trust Assets would not be affected by the proposed action to convey LSID's non-CVP water through CVP facilities because there are no ITAs located in LSID.

Cumulative Effects

The Proposed Action would not interfere with ongoing water rights settlements for Indian Tribes. The Proposed Action does not result in additional water supplies when added to other water service actions. No additional water supplies would be diverted from reservoirs or rivers. Therefore, the Proposed Action would not contribute to cumulative effects on Indian Trust Assets.

3.5 Socioeconomic Resources

3.5.1 Affected Environment

The service area of the Friant Division and LSID is primarily rural agricultural land. There are many communities across the area where farm workers reside. There are many small businesses that support agriculture like feed and fertilizer sales, machinery sales and service, pesticide applicators, transport, packaging, marketing, etc.

3.5.2 Environmental Consequences

No Action

Under the No Action Alternative, LSID may not receive its supply of non-CVP Water for irrigation use. Fewer crops or lower value crops may be grown. LSID could sell the non-CVP water and purchase local supplies. Without this water, landowners in LSID may be enticed to sell their lands to developers. Reclamation does not have any land use change authority. Land use changes would undergo separate environmental analysis under the California Environmental Quality Act.

Under the No Action Alternative, LSID would rely on CVP water which varies each year or purchase supplies, if available. LSID does not have adequate groundwater supplies. A decrease in crop production could occur resulting in less employment and job opportunities locally.

Proposed Action

The Proposed Action would not cause any harm to the quality of socio-economical resources nor have adverse impacts on public health or safety. Wutchumna/LSID is responsible for obtaining and managing water for the benefit of its members in consideration of local economic conditions and employment. The Proposed Action would provide an affordable water supply to LSID to maintain crops and the economic benefits to the agricultural industry over the next 20 years.

Cumulative Effects

The water purveyors seek the cheapest source of water to meet demands. Groundwater in the San Joaquin Valley is expensive to pump due to overdraft conditions. Multiple water service actions occur each year to move water to areas when and where it is needed to meet demands on time. Exchanges, transfers, Warren Act Contracts are typical water management options that allow surface water supplies to be delivered at the least costly means to water users. This benefit could result in slight increases of income for farmers and landowners. The Proposed Action, when added to other water service actions, does not result in net increases of water supplies or contribute to cumulative effects to socio-economical conditions.

3.6 Environmental Justice

3.6.1 Affected Environment

The February 11, 1994 Executive Order requires federal agencies to ensure that their actions do not disproportionately impact minority and disadvantaged populations. The market for seasonal workers on local farms draws thousands of migrant workers, commonly of Hispanic origin from Mexico and Central America. The population of some small communities typically increases during late summer harvest, overwhelming local water and sewage facilities and causing public health problems. Agriculture and related businesses are the main industry in LSID providing employment opportunities for these minority and/or disadvantaged populations. The areas around LSID have stable economies based on local citrus, olive, grape and cotton products.

3.6.2 Environmental Consequences

No Action

The No Action Alternative would make it difficult, but not impossible, for the LSID to use this non-CVP water. Without the non-CVP water, some field crops may not be planted or orchards may be stressed and reduce employment opportunities for farm laborers and migrant workers.

Proposed Action

The Proposed Action would not cause any harm to minority or disadvantaged populations. Warren Act Contracts would allow LSID to use its non-CVP water for irrigation in its service area. The availability of this non-CVP water for the LSID would maintain agricultural production and employment especially in dry years. A dependable water supply allows farmers to maintain permanent orchards that require field labor for pruning and harvest.

Cumulative Effects

The Proposed Action does not contribute to cumulative effects to low or disadvantaged populations. Multiple water service actions occur each year to improve timing of water deliveries, decrease costs, and move excess water supplies to areas with deficit water supplies. These water management options maintain existing croplands to sustain agricultural job opportunities providing a benefit for minority or disadvantaged populations. No lands would be taken out of long-term agricultural production. No increase of cultivated lands would occur as a result of the exchange arrangements.

Section 4 Environmental Commitments

Section 2.2.1 of this EA incorporates environmental measures associated with the project. Other than proper consultation and coordination with listed agencies, there are no specific activities and measures that are to result from this action to mitigate losses of resources, improve or enhance the environment.

Section 5 Consultation and Coordination

While no impacts to endangered species or to historic/cultural resources have been indicated by the Proposed Action, consultation and coordination was conducted with the agencies and mandates considered below.

5.1 Fish and Wildlife Coordination Act (16 USC . 651 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The Proposed Action does not involve construction projects. Therefore, the FWCA does not apply.

5.2 Endangered Species Act (16 USC. 1521 et seq.)

Section 7 of this Act requires Federal agencies to ensure that all federally associated activities within the United States do not jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of the critical habitat of these species. Reclamation has determined that the Proposed Action would have no affect on federally listed threatened and endangered species or their federally listed critical habitats. This determination is based on the conclusions in Section 3.2.2 of this EA and consultation is not required.

5.3 National Historic Preservation Act (15 USC 470 et seq.)

Section 106 of the National Historic Preservation Act requires federal agencies to evaluate the effects of federal undertakings on historical, archeological and cultural resources. No features or resources have been identified that could be impacted by the Proposed Action.

5.4 Executive Order 11988 – Floodplain Management and Executive Order 11990 - Protection of Wetlands

Executive Order 11988 requires Federal agencies to prepare floodplain assessments for actions located within or affecting flood plains, and similarly, Executive Order 11990 places similar requirements for actions in wetlands. The Proposed Action would not adversely affect floodplains or wetlands.

Section 6 List of Preparers and Reviewers

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Judi Tapia, Natural Resource Specialist, SCCAO

Mike Kinsey, Wildlife Biologist, SCCAO

Barbara Hidleburg, Repayment Specialist, SCCAO

Chris Eacock, Natural Resource Specialist, SCCAO

Amy Barnes, Archaeologist, MP

Section 7 References

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Appendix A WATER QUALITY STANDARDS

LINDSAY-STRATHMORE IRRIGATION DISTRICT

The following water quality analyses are required to convey Wutchumna water under this contract:

Water Quality Monitoring Requirements Non-Project Water from Wutchumna Ditch				
Location	FKC Milepost	Parameter	Frequency	Remarks
Friant-Kern Canal Avenue 336 bridge (upstream site)	68.65	Electrical conductivity, pH, turbidity	Monthly while Wutchumna water is being pumped into the canal	(2)
Wutchumna Ditch	69.13	Title 22 constituents, total coliform	Annual	(1)
		Electrical conductivity, pH, turbidity	Monthly	(2)
Friant-Kern Canal Avenue 328 bridge (downstream site)	70.28	Electrical conductivity, pH, turbidity	Monthly while Wutchumna water is being pumped into the canal	(2)

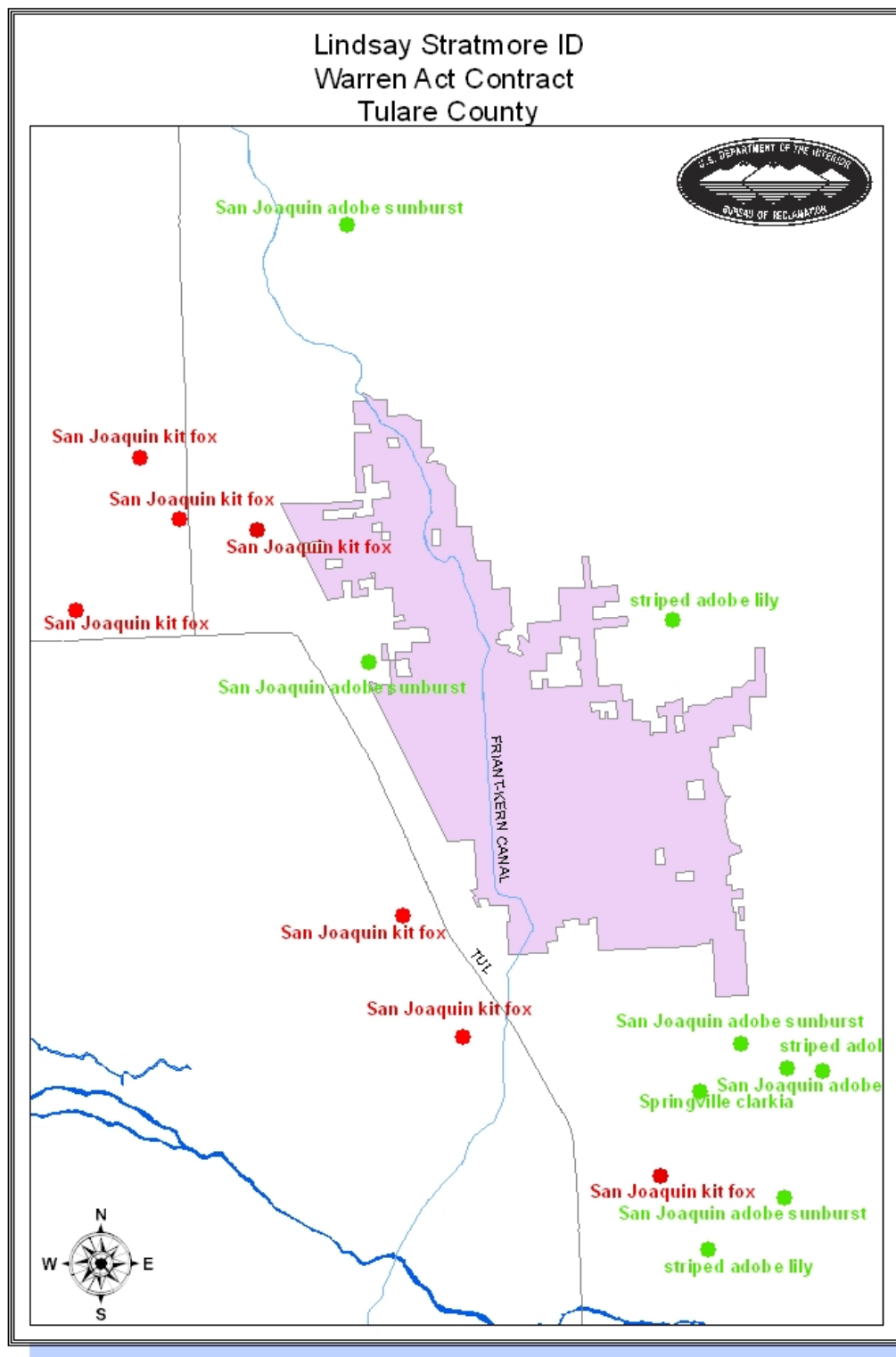
(1) Analyses must be conducted by a laboratory approved by Reclamation.

(2) Field measurements will be taken by the Non-Federal Operating Entity during the first week of each month and reported to the Contracting Officer by the 15th of each month.

The Contracting Officer reserves the right to modify this monitoring program if the Contracting Officer determines that Wutchumna water may or may not degrade the quality of Project water.

Revised: January 17, 2008 SCC-107

Appendix B MAP AND LIST OF THREATENED AND ENDANGERED SPECIES



USGS 7.5 Map – Lindsay Quad T20SR27E sections 2-11, 13-18, 20-29, 32-36, T19SR27E sections 29-33, T19SR26E section 36; Rocky Hill T19SR27E sections 19-20, 29-30; Frazier Valley T20SR27E section 13, 24-25, 36, T21SR28E Section 6, T20SR28E 7 and 18.

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 070911123344

Database Last Updated: August 16, 2007

Quad Lists

Listed Species

Invertebrates

- Branchinecta lynchi
 - vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus
 - valley elderberry longhorn beetle (T)

Fish

- Hypomesus transpacificus
 - delta smelt (T)

Amphibians

- Ambystoma californiense
 - California tiger salamander, central population (T)
- Rana aurora draytonii
 - California red-legged frog (T)

Reptiles

- Gambelia (=Crotaphytus) sila
 - blunt-nosed leopard lizard (E)
- Thamnophis gigas
 - giant garter snake (T)

Birds

- Empidonax traillii extimus
 - southwestern willow flycatcher (E)
- Gymnogyps californianus

- California condor (E)
- Critical habitat, California condor (X)

Mammals

- *Dipodomys nitratoideus nitratoideus*
 - Tipton kangaroo rat (E)
- *Vulpes macrotis mutica*
 - San Joaquin kit fox (E)

Plants

- *Clarkia springvillensis*
 - Springville clarkia (T)
- *Pseudobahia peirsonii*
 - San Joaquin adobe sunburst (T)
- *Sidalcea keckii*
 - Critical habitat, Keck's checker-mallow (X)
 - Keck's checker-mallow (=checkerbloom) (E)

Candidate Species

Amphibians

- *Rana muscosa*
 - mountain yellow-legged frog (C)

Quads Containing Listed, Proposed or Candidate Species:

FRAZIER VALLEY (309B)

SUCCESS DAM (309C)

LINDSAY (310A)

CAIRNS CORNER (310B)

WOODVILLE (310C)

PORTERVILLE (310D)

CHICKENCOOP CANYON (332C)

EXETER (333C)

County Lists

No county species lists requested.

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) Critical Habitat designated for this species